

REMARKS

By the present amendment, the claims have been amended to address the indefiniteness rejection, and new claims 31-32 have been added for recitations deleted from claims 10 and 22, as discussed below in Part I.

Further, claims 1, 2, and 14 have been amended to clarify that the coating comprises:

- a first full-area or partial metal layer having a first coloration or colour effect,
- a surface relief structure including a diffraction grating and/or a hologram disposed on this metal layer, and
- a second full-area or partial metal layer disposed on this surface relief structure, wherein the second full-area or partial metal layer has a second coloration or a colour effect which is different from the first coloration or colour effect.

Support for the added recitations is found in the original application, for example, at least on page 4, lines 5-22 (layer having additional surface reliefs, coloured coating on carrier substrate which already has layer) and page 11, lines 28-32 (relief structures that are metallized or partially metallized), on page 8, lines 11-16 (substrate coated with metal foil) and page 10, lines 10-13 and 34-25 (full-area or partial metal layer present or applied to the substrate), and on page 9, lines 13-14 (compositions of individual colour layers can vary).

New claims 33-35 have been added. Support for the added recitations is found in the original application, for example, page 10, lines 10-13.

Claims 1-35 are pending in the present application. Claims 1, 2, and 14 are the only independent claims.

I. Indefiniteness rejection

In the Office Action, claims 1-30 are rejected under 35 U.S.C. 112, second paragraph, as indefinite in connection with being allegedly “replete with grammatical and idiomatic errors.”

Reconsideration and withdrawal of the rejection is respectfully requested. The objections in the Office Action have been addressed as follows:

- Claims 1 and 2: the assertion that “system” and “security element” are vague and relationship with “data carriers, valuable documents” is not clear is respectfully traversed. Further, claims 1 and 2 have been amended to recite “at least one of a data carrier, valuable document and pack” in claim 1 and “a substrate” in claim 2. It is submitted that these terms are conventional in the art of security documents. Accordingly, the preambles of claims 1 and 2 are not vague.
- Claim 1: the expression “and the like” has been deleted.
- Claim 1: the phrase “a defined property” has been deleted.
- Claims 5 and 17: the list of elements has been redrafted using conventional “Markush group” language.
- Claims 6 and 22: the assertion that “functional layers” is not clear in the absence of recited function is respectfully traversed. It is submitted that this term is conventional in the art.
- Claims 7 and 19: the expression “security elements” (plural) has been replaced by “security element” (singular) in each of claims 3-13 and 27.

- Claims 10 and 22: the phrase introduced by “possibly...” has been deleted, and new claims 31 and 32 dependent on claims 10 and 22, respectively, have been added for the corresponding recitation.
- Claims 11 and 23: the expression “the lamination adhesive” has been provided antecedent basis by reciting that the security element is laminated to the one or more carrier substrate(s) using a lamination adhesive which is pigmented.
- Claims 13 and 25: the expression “the adhesive” has been replaced by “the hot-melt or cold-seal adhesive” to correspond to the language in the previous claim.
- Claim 29: the objection to the expression “value or other properties... of a pack” has been addressed by deleting “identification of the value or other properties” before “identification of a valuable document”.
- Claim 30: the expression “or the like” has been deleted in that claim 30 has been amended to “System according to Claim 1, which is a valuable document or pack”.

The other claims have been amended accordingly.

In view of the above, it is submitted that the rejection should be withdrawn.

II. Art rejections based on Curiel

In the Office Action, claims 1, 2, and 14 are rejected under 35 U.S.C. 102(b) as anticipated by US 5,913,543 to Curiel (“Curiel”).

The rejection is respectfully traversed. Curiel does not envision a combination of its embodiment of col. 3, lines 50-55 (metallized surface at the upper portion of the hologram) and its embodiment of col. 10, lines 40-50 (metallized surface underlying the hologram) with

different colorations or colour effects for an upper metal layer (see Curiel at col. 8, lines 5-8), as compared to a lower metal layer (see Curiel at col. 10, lines 46-47).

Specifically, when describing the embodiment of Fig. 5, Curiel describes various shapes of the “metallized or partially metallized upper surface” (col. 8, lines 5-8 and 21-27), but Curiel is completely silent regarding colour effects. When describing the embodiment of Fig. 10, Curiel states that “[t]he embossed hologram 186 is transparent, but may, if desired, have a partially metallized underlying layer 188” (col. 10, lines 46-47), but Curiel is also completely silent regarding colour effects. Further, the term “transparent” as stated in Curiel confirms that, for Curiel, the embodiment with underlying metallized layer does not have another metallized surface at the upper portion of the hologram. Since Curiel envisions and describes the upper and underlying metallizations separately, and further, Curiel clearly does not envision different colorations or colour effects, it is submitted that the person of the art would not be motivated to combine these embodiments, and further, that person would not have any incentive or motivation to provide different colorations or colour effects.

In contrast, in the presently claimed invention, as recited in present claims 1, 2, and 14, the coating comprises:

- a first full-area or partial metal layer having a first coloration or colour effect,
- a surface relief structure including a diffraction grating and/or a hologram disposed on this metal layer, and

- a second full-area or partial metal layer disposed on this surface relief structure, wherein the second full-area or partial metal layer has a second coloration or a colour effect which is different from the first coloration or colour effect.

An advantage of the presently claimed invention is that a combination of a metallic mirror layer under and a coloured metallic layer on the relief structure with different colorations or color effects makes it possible to show both (i) a really clear text feature and (ii) a coloured holographic structure, for example. This is not possible using a conventional laquer layer or even a metallized layer as in Curiel, instead of the coloured metallic layer of the present invention, because a conventional lacquer layer or a non-distinct metallized layer would result in fudging or extinguishing the holographic structure in the areas where the layer is applied.

The features of the presently claimed invention and their advantages are not taught or suggested in Curiel. Therefore, the present claims are not anticipated by, and not obvious over, Curiel.

In view of the above, it is submitted that the rejection should be withdrawn.

III. Art rejections based on Berger

In the Office Action, claims 1, 2, and 14 are rejected under 35 U.S.C. 102(b) as anticipated by US 6,165,592 to Berger et al. ("Berger").

Further, claims 1-4, 6-16, and 18-30 are rejected under 35 U.S.C. 102(b) as anticipated by, or in the alternative, under 35 U.S.C. 103(a) as obvious over, Berger.

Also, claims 5 and 17 are rejected under 35 U.S.C. 103(a) as obvious over Berger.

The rejections are respectfully traversed.

Berger discusses a “thin metal layer 5” (Berger at col. 5, lines 29-30), “reflecting layer 15 of metal” (col. 6, line 12) or “as the only embodiment of a “metal layer” or “metalized.” In Berger, the thin metal layer 5 is used to form the diffracting structure.

Thus, similarly to Curiel, Berger does not disclose a coating as in the presently claimed invention, as recited in present claims 1, 2, and 14, which comprises:

- a first full-area or partial metal layer having a first coloration or colour effect,
- a surface relief structure including a diffraction grating and/or a hologram disposed on this metal layer, and
- a second full-area or partial metal layer disposed on this surface relief structure, wherein the second full-area or partial metal layer has a second coloration or a colour effect which is different from the first coloration or colour effect.

Therefore, the present claims are not anticipated by, and not obvious over, Berger.

In view of the above, it is submitted that the rejections should be withdrawn.

Conclusion

In conclusion, the invention as presently claimed is patentable. It is believed that the claims are in allowable condition and a notice to that effect is earnestly requested.

If there is, in the Examiner's opinion, any outstanding issue and such issue may be resolved by means of a telephone interview, the Examiner is respectfully requested to contact the undersigned attorney at the telephone number listed below.

Application No.: 10/560,392
Art Unit: 1794

Amendment Under 37 C.F.R. 1.111
Attorney Docket No.: 053454

If this paper is not timely filed, Applicant(s) respectfully petition(s) for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,
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